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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,664

07/28/2003

Atsushi Takahashi

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09/19/2008

DAY PITNEY LLP

7 TIMES SQUARE

NEW YORK, NY 10036-7311

EXAMINER

LEWIS, RALPH A

ART UNIT

PAPER NUMBER

3732

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/628,664	<b>Applicant(s)</b> TAKAHASHI, ATSUSHI	
	<b>Examiner</b> Ralph A. Lewis	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-11, 16-18 and 25-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-11, 16-18 and 25-30 is/are allowed.
- 6) ☒ Claim(s) 31-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **Rejections based on Prior Art**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakocz (US 6,276,934) in view of Spoonhower et al. (US 2002/0118279).

Rakocz discloses a dental mirror 28 having an incoming light portion 24 which passes a light image (through optic 30 and 32) to a CCD camera 36 where it is converted to a digital image and conveyed via cable 23 to a monitor (column 5, line 20). Rakocz discloses a generic monitor rather than the claimed "hand held monitor." Spoonhower et al. discloses a dental camera having a monitor sized 14 "that can be easily hand positioned relative to the dentist's and/or patient's line of sight" (page 2, paragraph [0020]). It would have been obvious to one skilled in the art to have used a hand held monitor as that disclosed by Spoonhower et al in place of the generic monitor of Rakocz so that the display could be readily positioned for easy viewing by the dentist and patient as taught by Spoonhower et al.

In response to the present rejection applicant amended claim 31 to require that the CCD camera be attached to the back surface of the dental mirror and argues that in Radocz the CCD camera 36 is located in the handle 37. The examiner notes that the

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secondary reference to Spoonhower et al teaches that the CCD camera 50 (i.e. a flat computer chip) can be sized such that it may be located at the distal end of an intraoral instrument thereby eliminating the difficulty in conveying the optical image through a series of optical lenses. To have positioned a small CCD chip on the back side of the Rakocz mirror 28 in place of reflector 30 and thereby eliminate the need for the reflector 30 and lenses 32 would have been obvious in view of the teaching by Spoonhower et al who teach the positioning of such an imaging chip at the distal end of a intraoral dental tool.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakocz (US 6,276,934) and Spoonhower et al. (US 2002/0118279) as applied above and further view of Lake (US 5,951,284).

Lake discloses a dental mirror having both air and suction hoses to permit suction removal of debris and saliva from the patient's mouth and the mirror surface (see col. 2, lines 50-54). It would have been obvious to one skilled in the art to provide the device of Rakocz with an air injection and a suction hose and vacuum source in view of Lake in order to permit suction removal of debris and saliva from the patient's mouth and the mirror surface.

### **Allowable Subject Matter**

Claims 7-11, 16-18 and 25-30 are allowed.

### **Action Made Final**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R.Lewis  
September 14, 2008

/Ralph A. Lewis/  
Primary Examiner, Art Unit 3732